(b) Amendments to the Claims

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (Currently Amended) A method for producing a crystalline film by melting and resolidifying a film comprising the steps of:

preparing a film having a specific amorphous region obtained by a step of forming a film in which a specific amorphous region and a peripheral amorphous region continuous to a periphery of the specific amorphous region ~~and different in thickness from the specific amorphous region~~ co-exist[[;]] , the film having a thickness larger in the specific amorphous region than in the peripheral amorphous region;

melting at least a part of the film so that a single crystal grain or a single cluster remains unmelted in the specific amorphous region ; and

resolidifying the film so that crystal growth occurs in a direction from the specific amorphous region toward the peripheral amorphous region.

Claim 2. (Cancelled).

3. (Previously Presented) The method according to claim 1, wherein the step of preparing a film includes a step of forming a concave portion on a surface of a substrate on which the film is provided.

Claim 4. (Cancelled).

5. (Previously Presented) The method according to claim 1, wherein, at a maximum melting state of the film in the melting-resolidification process, a single crystal grain or single crystalline cluster remains unmelted in the specific amorphous region while the peripheral amorphous region thereof is completely melted.

6. (Previously Presented) The method according to claim 5, wherein a ratio of a dimension to a thickness of the specific amorphous region is larger, when a crystal growth of the single crystal grain or the single crystalline cluster existing in the specific amorphous region executes a crystal growth in a resolidification step, than a ratio of a growth velocity in a planar direction to a growth velocity in a direction of film thickness in the specific amorphous region.

7. (Previously Presented) The method according to claim 5, wherein a ratio of a dimension to a thickness of the specific amorphous region is, when a crystal growth of the single crystal grain or the single crystalline cluster existing in the specific amorphous region executes a crystal growth in a resolidification step, within such a range that a growth front in a direction of film thickness reaches a surface of the film before a growth front in a planar direction of the film reaches a periphery of the specific amorphous region.

8. (Previously Presented) The method according to claim 5, wherein a ratio of a dimension of the specific amorphous region to a thickness difference between the specific

amorphous region and the peripheral amorphous region is larger, when a crystal growth of the single crystal grain or single crystalline cluster existing in the specific amorphous region executes a crystal growth in a resolidification step, than a ratio of a growth velocity in a planar direction to a growth velocity in a direction of film thickness in the specific amorphous region.

9. (Previously Amended) The method according to claim 5, wherein a ratio of a dimension of the specific region to a thickness difference between the specific amorphous region and the peripheral amorphous region is larger, when a crystal growth of the single crystal grain or the single crystalline cluster existing in the specific amorphous region executes a crystal growth in a resolidification step, within such a range that a growth front in a direction of film thickness reaches a surface of the film before a growth front in a planar direction of the film reaches a periphery of the specific amorphous region.

10. - 30. (Cancelled).

31. (Previously Presented) The method according to claim 1, wherein a spatial position of at least a part of crystal grains having a continuous crystalline structure in the crystalline film is determined by a spatial position of the specific amorphous region.

32. (Previously Presented) An element utilizing a crystalline film obtained by a producing method according to claim 1, wherein a spatial position of at least a part of crystal grains having a continuous crystalline structure in the crystalline film is determined by a spatial

position of the specific amorphous region, and a crystal grain having the determined spatial position is utilized as an active area.

33. (Original) The element according to claim 32, wherein an active area is formed inside a single crystal grain of the crystalline film.

34. (Original) A circuit including a plurality of the element according to claim 32, and a wiring between the elements.

35. (Currently Amended) The method according to claim 1, characterized in that, by defining a melting point of a bulk crystal as Tc and a supercooling degree causing a spontaneous nucleation from a molten phase as ΔTc in a melting-resolidification process of the film, the specific amorphous regions are provided with ~~such an interval~~ a predetermined interval such that a portion positioned between the specific amorphous regions of the predetermined interval reaches a temperature equal to or higher than Tc - ΔTc at a time when an unsolidified region reaches a supercooling degree of DTc at the resolidification of the film.

36. (Currently Amended) The method according to claim 35, wherein the specific amorphous regions are provided with ~~such an interval~~ a predetermined interval such that a portion where a region, in the vicinity of a growth front of a crystal grain growing from a specific amorphous region and having a higher temperature than in a periphery, overlaps with a region, in the vicinity of a growth front of a crystal grain growing from another specific

amorphous region and having a higher temperature than in a periphery, has a temperature equal to or higher than Tc - ΔTc.

37. (Currently Amended) The method according to claim 36, wherein the specific amorphous regions are provided with ~~such an interval~~ a predetermined interval such that growth fronts of crystal grains growing from two specific amorphous regions mutually contact before a time when a portion where a high-temperature region, in the vicinity of a growth front of a crystal grain growing from a specific amorphous region, overlaps with a high-temperature region, in the vicinity of a growth front of a crystal grain growing from another specific region, reaches a temperature equal to or lower than Tc - ΔTc.

38. (Original) The method according to claim 1, characterized, in a melting-resolidification process of a film, in melting the film with plural heating means and resolidifying the film.

39. (Original) The method according to claim 38, wherein at least one of the plural heating means is heating means having a constant heating intensity without a change with time, in a melting process of the film.

40. (Original) The method according to claim 39, wherein the heating means having a constant heating intensity is a heat conduction from a substrate, an irradiation with a continuously oscillated laser light, or a current-supply heating of the film.

41. (Original) The method according to claim 38, wherein at least one of the plural heating means is heating means having a heating intensity changing with time, in a melting process of the film.

42. (Original) The method according to claim 41, wherein the heating means having a heating intensity changing with time is a pulsed laser irradiating the film with two pulses of different intensities with a time difference.

43. (Original) The method according to claim 38, wherein the plural heating means includes heating means having a constant heating intensity without a change with time in a melting process of the film, and heating means having a heating intensity changing with time in a melting process of the film.

44. (Original) The method according to claim 38, wherein the plural heating means includes heating means which heats the film to a temperature not exceeding a melting point, and heating means for heating the temperature-elevated film thereby melting the film.

45. (Original) The method according to claim 1, characterized in including a step of giving a heat not changing with time to the film thereby heating the film to a temperature not exceeding a melting point, a step of giving a heat changing with time thereby heating and melting the temperature-elevated film, and a step of resolidifying the film.

46. - 48. (Cancelled).